



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,801	11/21/2005	Masakazu Funahashi	28955.4035	7969
27890	7590	05/14/2010	EXAMINER	
STEPTOE & JOHNSON LLP 1330 CONNECTICUT AVENUE, N.W. WASHINGTON, DC 20036			GARRETT, DAWN L	
ART UNIT	PAPER NUMBER			
	1786			
MAIL DATE	DELIVERY MODE			
05/14/2010	PAPER			

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/549,801	<b>Applicant(s)</b> FUNAHASHI, MASAKAZU
	<b>Examiner</b> Dawn Garrett	<b>Art Unit</b> 1786

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

1) Responsive to communication(s) filed on 25 January 2010.

2a) This action is FINAL.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

4) Claim(s) 2,5,8 and 10-15 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 2,5,8 and 10-15 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 19 September 2005 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_

5) Notice of Informal Patent Application

6) Other: \_\_\_\_\_

**DETAILED ACTION**

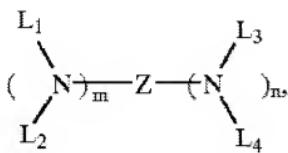
***Response to Amendment***

1. This Office action is responsive to the amendment received January 25, 2010. Claims 1, 3, 4, 6, 7, and 9 are cancelled. Claims 2 and 8 were amended. Claims 2, 5, 8, and 10-15 are pending.
2. The rejection of claims 2, 5, 8, and 10-15 under 35 U.S.C. 103(a) as being unpatentable over Onikubo et al. (US 6,280,859) is withdrawn due to the amendment.
3. The obviousness double patenting rejections over US applications 11/547,233, 11/547,306, and 11/575,441 are withdrawn because these US co-pending applications are now abandoned.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
5. Claims 2, 5, 8, and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oh et al. (US 2003/0118866 A1). Oh et al. discloses organic electroluminescent devices comprising the following formula (see par. 29):



Z is A<sub>1</sub> (see par. 31), which may be a substituted aromatic hydrocarbon group (see par. 32).

Pyrene groups are specifically recognized as aromatic groups for A<sub>1</sub> (see pages 4 and 5). The L variables include substituted aromatic hydrocarbon groups (see par. 35). The each substituent group on the L variable groups may include alkyl or cycloalkyl such as t-butyl (branched alkyl with three carbon atoms), i-propyl, and cyclohexyl (cycloalkyl having more than 3 carbon atoms) (see page 6, par. 73). Oh et al. does not *exemplify* a compound according to the formula comprising pyrene as Z with the nitrogens bonded at the 1 and 6 positions; however, it would have been obvious to one of ordinary skill in the art at the time of the invention to have formed a compound having Z as a pyrene group, because Oh et al. clearly recognizes pyrene as an aromatic group and as a group suitable for forming the compound. Oh et al. also does not *exemplify* L groups comprised of substituted phenyl groups wherein there are two substituents on a single phenyl group; however, it would have been obvious to one of ordinary skill in the art at the time of the invention to have formed a compound having two substituent groups on the L phenyl groups, because Oh et al. clearly teach the L groups may be substituted with groups such as alkyl and cycloalkyl. One would expect to achieve a functional compound within the disclosure set forth by Oh et al.

Regarding claims 10-15, the compound is in a layer where the compound may be a main component of the layer or contained in an amount of 20 wt % or less (see abstract, par. 27 and par. 29).

***Double Patenting***

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 2, 5, 8 and 10 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 21, and 22 of copending Application No. 10/617,397 (now issued as US Patent No. 7,651,786 having renumbered claims 1-3). Although the conflicting claims are not identical, they are not patentably distinct from each other because the compounds of the instant claims are within the definition for the amine compounds of an EL device of '397. X3 of '397 may be pyrene. Ar5 and Ar6 of '397 may be substituted aromatic

groups. Ar15-A18 of '397 are substituent groups that may be present in a number of 2 or greater.

8. Claims 2, 5, 8 and 10 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 28, 31, 38, 41, 49 of copending Application No. 11/207,933. Although the conflicting claims are not identical, they are not patentably distinct from each other because the compounds of the instant claims are within the definition for the amine compounds of an EL device of '933. X3 of '933 may be pyrene that is substituted. Ar5 and Ar6 of '933 may be substituted aromatic groups. Ar15-A18 of '933 are substituent groups that may be present in a number of 2 or greater.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

9. Claims 2, 5, 8, 10 and 12 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2, 5, 9, 10, 14, 18 and 22 of copending Application No. 11/761,437. Although the conflicting claims are not identical, they are not patentably distinct from each other because the compounds of the instant claims are within the definition for the amine compounds of an EL device of '437. X3 of '437 may be pyrene. Ar5 and Ar6 of '437 may be substituted aromatic groups. Ar15-A18 of '437 are substituent groups that may be present in a number of 2 or greater.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. (Note: This application has been allowed, but has not yet issued as a patent).

10. Claims 2, 5, 8 and 10-12 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-8 of copending Application No. 11/596,299. Although the conflicting claims are not identical, they are not patentably distinct from each other because the compounds of the instant claims are within the definition for the amine compounds of an EL device of '299. Ar1-Ar4 of '299 are substituent groups that may be present in a number of 2 or greater.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

*Response to Arguments*

11. Applicant's arguments with respect to the rejection over Onikubo et al. (US 6,280,859) have been considered but are moot in view of the new ground(s) of rejection.

The double patenting rejections over US applications 10/617,397 (now issued); 11/207,933; 11/791,437; 11/596,299 have been maintained. Applicant stated in the remarks received January 25, 2010, "Applicant respectfully requests deferral of any such rejection until the claims of the present application are deemed otherwise allowable."

***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (571) 272-1523. The examiner can normally be reached Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Lawrence Tarazano can be reached on (571) 272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dawn Garrett/  
Primary Examiner, Art Unit 1786

May 12, 2010